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EXAMINER
AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,924	WHITMORE ET AL.	
	Examiner	Art Unit	
	Walter B Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-83* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-83* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 5-7, 11, 16, 19, 53, 56 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claims 1 and 53, the phrase "generally planar" is indefinite. The structure intended to be recited by this phrase cannot be ascertained. Furthermore, the term "generally" (first and second lines of section (a)) is indefinite.

In further regard to claim 1, the structure intended to be recited by the term "undercut" (fourth line of section (a)) is indefinite.

Claims 1 and 11 recite the limitation "said substantially planar base central portion". There is insufficient antecedent basis for this limitation in the claims.

In regard to claims 5-7 and 56, the "adapted to" recitation in the last three lines of claims 5-7 and 56 does not positively recite the structural relationship between the lid shelf and the retaining shelf of the base serving member and therefore, the structural relationship between the lid and the base is indefinite.

In regard to claim 16, the phrase "generally planar dome upper surface portion" is indefinite. The structure intended to be recited by this phrase cannot be ascertained.

In regard to claim 19, the structure intended to be recited by the phrase "a retaining ridge upper profile which is generally inwardly convex" cannot be ascertained. Furthermore, the

"adapted to" recitation in the last three lines of claim 19 does not positively recite the structural relationship between the lower portion of the base sidewall and the generally convex retaining ridge profile and therefore, the structural relationship between the lower portion of the base sidewall and the generally convex retaining ridge profile is indefinite.

In further regard to claim 53 (the fourth-sixth lines of section (a) of the claim), it is unclear whether or not the base sealing portion is being claimed as being "outwardly and upwardly disposed" or if the phrase "outwardly and upwardly disposed" is modifying the base sidewall, as in the base sealing portion is "defined by the base sidewall [that is] outwardly and upwardly disposed with respect to said generally planar base central portion" as established in the first two lines of section (a) of claim 53.

In further regard to claim 53, the "adapted to" recitation in the last three lines of claim 53 does not positively recite the structural relationship between the sidewall stacking recess and the retaining ridge profile. Therefore, the structural relationship between the sidewall stacking recess and the retaining ridge profile is indefinite.

Claim 60 recites the limitation "said generally inwardly and upwardly convex retaining ridge profile" in the first and second lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-10, 13-18, 21-27, 33, 36-38, 43-45 and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. in view of Schlaupitz et al.

In regard to claim 1, Littlejohn et al. teach a sealable food container having a base serving member and a lid (col. 11, lines 4-32 and Fig. 1-16). The base serving member has a generally planar central portion that is shown in Fig. 1. The sidewall of the base serving member extends generally upwardly and outwardly from the generally planar central portion as shown in Fig. 3. The base member has an outer flange portion extending outwardly from the sidewall as shown in Fig. 3 (item 14).

The upwardly extending sidewall has an undercut annular base sealing surface (inwardly tapering frustoconical base seal area, item 52, Fig. 1 and col. 7, lines 58, col. 11, lines 8-11) that is disposed between the generally planar central portion and the outer flange portion. Littlejohn et al. teach a secondary seal ridge (item 62), which is structurally equivalent to the base stop ridge of the instant application, that is adjacent an upper extremity of the undercut annular base sealing surface (item 52) of the sidewall (col. 8, lines 60-68 and Fig. 10, item 62).

Littlejohn et al. teach that the lid is provided with a dome portion as shown in Figure 1 and a flexible lid sidewall that extends downwardly from the dome portion as shown in Figure 5.

The lid also has a lid flange portion that extends outwardly with respect to the downwardly extending lid sidewall as shown in Figure 5. Littlejohn et al. teach that both the base and the lid are made of resilient materials (col. 3, lines 45-48); therefore, the sidewall of the lid of the instant application is flexible.

Littlejohn et al. teach that the lid flange portion has at its inner periphery a lid sealing portion having an annular lid sealing surface extending upwardly with respect to the downwardly extending lid sidewall (upwardly tapering frustroconical lid seal area, item 68, Figures 7-10). Littlejohn et al. teach a secondary lid seal furrow (item 76), which is structurally equivalent to the lid stop ridge of the instant application (col. 8, lines 35-38 and Fig. 10, item 76).

Littlejohn et al. teach that the base serving member and the lid are configured such that the sealing lid is secured to the base serving member by cooperation of the base stop ridge of the base serving member and the lid stop ridge of the sealing lid when the lid is forced downwardly on the base serving member, and that a seal is provided between the respective seal areas of the base and lid and also between seal furrow 76 of the lid and secondary seal ridge 62 of the base (col. 8, line 60-col. 9, line 4 and Figures 7-8).

Furthermore, Littlejohn et al. teach that the lid has a horizontal lid reinforcing ring (item 26, Figures 7-10 and col. 5, lines 20-25).

Littlejohn et al. fail to teach a laterally extending retaining shelf adjacent a lower extremity of the undercut annular base sealing surface.

Schlaupitz et al., however, teach a sealable food container having a base serving member (tray, item 12) and a lid (cover, item 14) (Figures 1-5). Schlaupitz et al. teach that the base has a laterally extending retaining shelf (laterally extending section, item 82, Figures 4 and 50) that a

corresponsing section of the lid is positioned over (col. 7, lines 12-39). Schlaupitz et al. teach that the laterally extending retaining shelf contributes towards effective locking of the container (col. 7, lines 34-39). Therefore, one of ordinary skill in the art would have recognized to have formed the base serving member taught by Littlejohn et al. such that the base serving member has a laterally extending retaining shelf that corresponds to the horizontal lid reinforcing ring (item 26) taught by Littlejohn et al. in order to achieve effective mechanical support of the lid by the base serving member and to consequently achieve effective locking of the container as taught by Schlaupitz et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the base serving member taught by Littlejohn et al. such that the base serving member has a laterally extending retaining shelf that corresponds to the horizontal lid reinforcing ring (item 26) taught by Littlejohn et al. in order to achieve effective mechanical support of the lid by the base serving member and to consequently achieve effective locking of the container as taught by Schlaupitz et al.

In regard to claims 2-4, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the laterally extending retaining shelf extends outwardly over a base sidewall shelf length of at least about 0.5%, 1% or 1.5% of the diameter of the base serving member. The exact percentage of the diameter of the base serving member that the laterally extending retaining shelf extends outwardly over a base sidewall shelf is deemed to be a cause effective variable with regard to the sealing and mechanical properties of the container. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum

value of a cause effective variable such as the percentage of the diameter of the base serving member that the laterally extending retaining shelf extends outwardly over a base sidewall shelf through routine experimentation in the absence of a showing of criticality in the percentage of the diameter of the base serving member that the laterally extending retaining shelf extends outwardly over a base sidewall shelf. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 5-7, Littlejohn et al. teach that the lid is provided with a laterally extending lid shelf (horizontal lid reinforcing ring, item 26, Figures 1 and 7-10 and col. 5, lines 20-25) that extends between the flexible sidewall of the sealing lid and the annular sealing surface of the lid, and that extends outwardly over a lid shelf radial span as shown in Figures 1 and 7-10. In regard to the limitation that the lid shelf is "adapted to cooperate with the retaining shelf of the base serving member to position the sealing lid with respect thereto", it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Nonetheless, Schlaupitz et al. teaches that the lid shelf cooperates with the shelf of the base to position the sealing lid with respect thereto as discussed above, and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the container such that the shelf of the lid cooperates with the shelf of the base to position the sealing lid with respect thereto since it is notoriously well known to do so as taught by Schlaupitz et al.

In regard to claims 8-10, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the length of

the lid shelf radial span is at least about 25%, 50% or 75% of the base sidewall shelf length. The exact percentage of the lid shelf radial span relative to the base shelf length is deemed to be a cause effective variable with regard to the sealing and mechanical properties of the container. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the percentage of the lid shelf radial span relative to the base shelf length through routine experimentation in the absence of a showing of criticality in the percentage of the lid shelf radial span relative to the base shelf length. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claim 13, the base outer flange of the base serving member of Littlejohn et al. is arcuate as shown in Figure 3.

In regard to claim 14, the lid flange portion of the sealing lid is provided with an outer arcuate flange portion (sealing brim, item 16, Figures 5 and 6 and col. 5, lines 25-30) generally configured to overlay the arcuate outer flange of the base serving member as shown in Figure 6.

In regard to claim 15 and 33, Littlejohn et al. teach the sealable food container as discussed above. The limitations of claim 33 are addressed in the rejection to claims 5-7. Littlejohn et al. fail to teach that the flexible lid sidewall is a fluted sidewall. Schlaupitz et al., however, disclose that the sidewalls of the lid (cover, item 14) includes flutes (ribs, item 24, Figures 1 and 2) for reinforcing and strengthening the structure thereof (col. 4, lines 14-33). Therefore, one of ordinary skill in the art would have recognized to have formed flutes in the sidewall of the lid of Littlejohn et al. for reinforcing and strengthening the structure of the lid as taught by Schlaupitz et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed flutes in the sidewall of the lid of Littlejohn et al. for reinforcing and strengthening the structure of the lid as taught by Schlaupitz et al.

In regard to claims 16, 21 and 22, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Furthermore, Littlejohn et al. teach that the dome portion of the lid has a generally planar upper surface portion and Schlaupitz et al. disclose that the lid sidewall is provided with a plurality of outwardly convex flutes formed in the lid sidewall as is clearly taught in Figures 1 and 2. Furthermore, Figures 1 and 2 of Schlaupitz et al. cleary teach that the flutes are cylindrical. Littlejohn et al. and Schlaupitz et al. fail to explicitly teach that the lid includes about 3 or fewer (claim 16), from about 1.5 to about 2.5 (claim 21), or about 2 to about 2.5 (claim 22) flutes per inch of engagement perimeter. The exact amount of flutes per inch of engagement perimeter is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the amount of flutes per inch of engagement perimeter through routine experimentation in the absence of a showing of criticality in the amount of flutes per inch of engagement perimeter. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claim 17, Schlaupitz et al. discloses that the outwardly convex flutes are circumferentially spaced apart from each other as taught in Figures 1 and 2.

In regard to claim 18, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to explicitly teach that the

outwardly convex flutes are spaced apart a circumferetial distance of from about 0.05 inches to about 0.25 inches about the periphery of the sealing lid. The exact spacing between adjacent flutes along the periphery of the sealing lid is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the spacing between adjacent flutes along the periphery of the sealing lid through routine experimentation in the absence of a showing of criticality in the spacing between adjacent flutes along the periphery of the sealing lid. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claim 23, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the flutes have a cylindrical diameter of from about 0.2 inches to about 0.80 inches. The exact flute diameter is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the flute diameter through routine experimentation in the absence of a showing of criticality in the flute diameter. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 24 and 25, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the cylindrical diameter of the flutes is at least about 0.75%, or from about 1% to about 2.5%, of the length of engagement perimeter. The exact flute diameter relative to the length of engagement

perimeter is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the flute diameter relative to the length of engagement perimeter through routine experimentation in the absence of a showing of criticality in the flute diameter relative to the length of engagement perimeter. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 26 and 27, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the upper inward extension length of the flutes adjacent the generally planar upper surface portion of the dome is at least about 0.2 or 0.3 inches. The exact upper inward extension length of the flutes adjacent the generally planar upper surface portion of the dome is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the upper inward extension length of the flutes adjacent the generally planar upper surface portion of the dome through routine experimentation in the absence of a showing of criticality in the upper inward extension length of the flutes adjacent the generally planar upper surface portion of the dome. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 36 and 43, Littlejohn et al. teach that the container is thermoformed from sheets of polymeric materials (col. 3, lines 64-67). The polymeric materials being referred to are the thermoplastic resins disclosed in col. 6, lines 43-60.

In regard to claims 37 and 44, these claims consist entirely of process limitations; the method of forming the base or lid is not germane to the issue of patentability of the base or lid itself. Therefore, these limitations have not been given patentable weight.

In regard to claim 38, Littlejohn et al. teach styrenics, polyolefins and polyesters as suitable thermoplastics resins (col. 6, lines 45-47). Polystyrenes, as claimed, is a member of the styrenics genus. Polypropylenes and polyethylenes are polyolefins. Furthermore, Littlejohn et al. teach that copolymers or mixtures of styrenics, polyesters, polyethylenes and polyolefins are suitable (col. 6, lines 53-54).

In regard to claims 45 and 47, Littlejohn et al. teach that a styrenic is a suitable material for the lid (col. 6, lines 45-47). A styrene polymer is a styrenic. Furthermore, in regard to claim 47, Littlejohn et al. teach that the suitable materials, such as styrenics, are oriented (col. 6, line 54).

In regard to claims 48-52, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach the wall caliper ranges of the sealing lid respectively claimed in claims 48-52. The exact wall caliper of the sealing lid is deemed to be a cause effective variable with regard to the strength of the sealing lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the wall caliper of the sealing lid through routine experimentation in the absence of a showing of criticality in the wall caliper of the sealing lid. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. in view of Schlaupitz et al., and in further view of Yun.

In regard to claim 11, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. Furthermore, Littlejohn et al. teach that the upwardly extending sidewall has an inwardly tapering frustoconical base seal area formed therein as discussed above. The lid has an upwardly tapering frustroconical lid seal area 68 as discussed above. The undercut annular base sealing surface and the annular lid sealing surface are therefore frustral sealing surfaces. Littlejohn et al. and Schlaupitz et al. fail to teach that the undercut annular base sealing surface and the annular lid sealing surface extend upwardly and outwardly with respect to the planar central portion of the base and the downwardly extending sidewall of the sealing lid, respectively. Yun, however, disclose a container with container base 6 and lid 8 (col. 2, lines 6-7 and Figure 1) forming an integral seal 20 (col. 2, lines 20-22 and Figure 1). The integral seal surface of both container base 6 and lid 8 of Yun extend upwardly and outwardly with respect to the planar central portion of the base and the downwardly extending sidewall of the sealing lid, respectively. It would have therefore been obvious to one of ordinary skill in the art at the time the invention was made to have modified the sealing surfaces of the base and lid of Littlejohn et al. such that the sealing surfaces extend upwardly and outwardly with respect to the planar central portion of the base and the downwardly extending sidewall of the sealing lid, respectively, since this structure is notoriously well known as a suitable structure for the cooperative sealing surfaces of container bases and lids, as taught by Yun.

In regard to claim 12, Littlejohn et al. teach that the lid stop ridge (secondary lid seal furrow, item 76) is located adjacent the upper edge of the annular sealing surface of the lid

(Figures 7-10). Furthermore, Littlejohn et al. teach that the sealing lid is dimensioned so as to outwardly flexibly urge the frustal sealing surface of the lid into surface to surface contact with the sealing frustal surface of the base when the base and the lid are secured to one another (col. 9, lines 4-8).

6. Claims 19, 20, 28-32, 34, 35, 53-69, 74-76 and 78-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. in view of Schlaupitz et al., and in further view of Grusin.

In regard to claims 19, 34, 53, 55-62, 67-69, 74-76 and 78-83, Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above. The limitations of claim 34 are addressed in the rejection to claims 5-7. Furthermore, Schlaupitz et al. teaches that the convex flutes project upwardly with respect to the generally planar dome upper surface portion of the dome to define a retaining ridge upper profile which is generally inwardly convex toward the enter of the dome as shown in Figures 1 and 2 (note, especially, the reinforcing ribs integrally formed in both the side and top of the lid as clearly shown in Figure 1). Schlaupitz et al. also teaches that the containers are stacked on top of each other (col. 2, lines 27-30, col. 3, lines 11-12 and col. 6, lines 43-46). Littlejohn et al. and Schlaupitz et al. fail to teach that the base sidewall is provided with a mating annular sidewall recess (a sidewall stacking recess as claimed in independent claim 53) at a lower portion of the base sidewall adapted to engage the retaining ridge profile in order to render a plurality of the food containers securely stackable with one another. Grusin, however, disclose a stackable food container having beveled sidewall end panels (items 24a and 24b, Figures 3 and 5) which are beveled upwardly (col. 3, lines 5-15) and which are structurally equivalent to the claimed mating annular sidewall recess at a lower portion

of the base sidewall. Grusin disclose that the lid (closure, item 11) includes upward projections (items 39a and 39b, Figures 1 and 5, col. 3, lines 42-44) that are complementary to the beveled surfaces of the sidewall recesses (items 24a and 24b) such that a stable stacking of containers is achieved via the complementary engagement of the upward projections (items 39a and 39b) and the sidewall recesses (items 24a and 24b) (col. 3, line 61-col. 4, line 5). Therefore, one of ordinary skill in the art would have recognized to have formed recesses in the sidewall of the base of the container taught by Littlejohn et al. and Schlaupitz et al. such that the recesses are complementary to the upwardly projecting flutes in order to provide a containers that can be stably stacked as taught by Grusin.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed recesses in the sidewall of the base of the container taught by Littlejohn et al. and Schlaupitz et al. such that the recesses are complementary to the upwardly projecting flutes in order to provide a containers that can be stably stacked as taught by Grusin. In regard to the limitation of claim 19 that the recess is "adapted to engage the retaining ridge profile in order to render a plurality of the food containers securely stackable with one another" and the similar "adapted to" recitation of claim 53, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Nonetheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed a recess in the base sidewall that engages the retaining ridge profile and consequently renders a plurality of the food containers securely stackable with one another as established above. Furthermore, it has been held that the recitation

that an element is "capable of" performing a function (in reference to the term "stackable") is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

In regard to claim 20 and 54, Schlaupitz et al. teach that the retaining ridge profile comprises a plurality of spaced arcuate flute profiles extending inwardly from the flexible sidewall of the sealing lid as shown in Figures 1 and 2 (note the reinforcing ribs integrally formed in both the side and top of the lid and thus extending inwardly from the flexible sidewall of the sealing lid as clearly shown in Figure 1).

In regard to claim 28, Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the upper inward extension length of the flutes above the generally planar upper surface portion of the dome is from about 1% to about 3% of the length of the engagement perimeter. The exact upper inward extension length of the flutes above the generally planar upper surface portion of the dome relative to the length of the engagement perimeter is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the upper inward extension length of the flutes above the generally planar upper surface portion of the dome relative to the length of the engagement perimeter through routine experimentation in the absence of a showing of criticality in the upper inward extension length of the flutes above the generally planar upper surface portion of the dome relative to the length of the engagement perimeter. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 29, 30, 63 and 64, Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the flute height above the generally planar dome upper surface portion is greater than about 0.07 inches, or from about 0.07 to about 0.15 inches. The exact flute height is deemed to be a cause effective variable with regard to the stacking stability. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the flute height through routine experimentation in the absence of a showing of criticality in the flute height. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 31 and 65, Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above. Schlaupitz et al. teach that the dome portion of the sealing lid is provided with a plurality of generally flat portions between the convex flutes as clearly shown in Figure 1. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the span of the flat portions is from about 0.05 to about 0.2 inches. The exact span of the flat portions is deemed to be a cause effective variable with regard to the strength of the lid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the span of the flat portions through routine experimentation in the absence of a showing of criticality in the span of the flat portions. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claims 32 and 66, Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above. Schlaupitz et al. teach that the planar (central)

portion of the dome is lower than the flat portions between adjacent flutes as clearly shown in Figure 1 (note the depth perspective at the right side of the trunk portion of the spade-shaped planar (central) portion of the lid and at the right hand corner of the spade-shaped planar (central) portion. Schlaupitz et al. therefore teaches that the flat portions are above the generally planar upper surface portion of the dome. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the height of the flat portions above the planar surface portion of the dome is from about 0.01 to about 0.1 inches. The exact height of the flat portions above the planar surface portion of the dome is deemed to be a cause effective variable with regard to the stacking stability. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the height of the flat portions above the planar surface portion of the dome through routine experimentation in the absence of a showing of criticality in the height of the flat portions above the planar surface portion of the dome. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claim 35, Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the laterally extending retaining shelf of the base extends outwardly over a base sidewall shelf length of at least about 25% of the diameter of the flutes of the sealing lid. The exact extension of the retaining shelf over the base sidewall shelf is deemed to be a cause effective variable with regard to the sealing and mechanical properties of the container. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the extension of the retaining shelf over the base

sidewall shelf through routine experimentation in the absence of a showing of criticality in the extension of the retaining shelf over the base sidewall shelf. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

7. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. in view of Schlaupitz et al., and in further view of Tsubone et al.

Littlejohn et al. and Schlaupitz et al. teach the sealable food container as discussed above.

In regard to claim 39, Littlejohn et al. and Schlaupitz et al. fail to teach that the base serving member is thermoformed from a mineral-filled polypropylene sheet. Tsubone et al., however, disclose a polypropylene sheet (col. 2, lines 45-50) that contains an inorganic filler in order to endow the sheet with formability to shape (col. 3, lines 9-14). Furthermore, Tsubone et al. teach that addition of the inorganic filler brings about improvements in heat resistance and stiffness (col. 3, lines 20-22). Therefore, one of ordinary skill in the art would have recognized to used the mineral filled polypropylene sheet as the base of Littlejohn et al. and Schlaupitz et al., since it is notoriously well known that mineral (inorganic) fillers improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the mineral filled polypropylene sheet as the base of Littlejohn et al. and Schlaupitz et al., since it is notoriously well known that mineral (inorganic) fillers improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

In regard to claim 40, Littlejohn et al. and Schlaupitz et al. fail to teach the inclusion of a mineral filler, or titanium dioxide or a basic organic or inorganic compound comprising the reaction product of an alkali metal or alkaline earth element with carbonates, and as further recited in lines 8-11 of claim 40. Tsubone et al., however, disclose the use of an inorganic filler such as talc, titanium dioxide, clay, calcium carbonate, silica, alumina, glass powders, etc. (col. 3, lines 22-30) in a mixture of polypropylene and polyethylene (col. 2, lines 48-50). Examiner interprets the terms "mineral" and "inorganic" to be equivalent. Tsubone et al. disclose that the inorganic fillers can be used in combination of two or more thereof (col. 3, lines 27-29). Therefore, one of ordinary skill in the art would have recognized to added a mineral filler, titanium dioxide and calcium carbonate to the base material of Littlejohn et al. and Schlaupitz et al. in order to improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

8. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. ('860) and Schlaupitz et al. and in further view of Littlejohn et al. (US 6,440,509).

Littlejohn et al. ('860) and Schlaupitz et al. teach the container as discussed above. Littlejohn et al. ('860) and Schlaupitz et al. fail to teach that the wall caliper of the base is about 10 to about 50 mils (as claimed in claim 41) or about 12 to about 25 mils (as claimed in claim 42). Littlejohn et al. ('509), however, disclose a plate having a wall caliper of about 10 to about 50 mils, preferably of about 15 to about 25 mils (col. 4, lines 2-9). Therefore, one of ordinary skill in the art would have recognized to have formed the base of the container of Littlejohn et al. ('860) and Schlaupitz et al. with a wall caliper of about 10 to about 50 mils, preferably of about

15 to about 25 mils, since these wall caliper values are notoriously well known as suitable wall caliper values for a food container as taught by Littlejohn et al. ('509).

9. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. ('860) and Schlaupitz et al., and in further view of Lu.

Littlejohn et al. and Schlaupitz et al. teach the container as discussed above. Littlejohn et al. and Schlaupitz et al. fail to teach that the styrene polymer comprises a styrene-butadiene copolymer. Lu, however, discloses that styrene-butadiene serves as an impact resistant polymer for container (col. 4, lines 3-6) and that polybutadiene is the preferred rubber component of the impact polymer (col. 2, lines 47-62). Therefore, one of ordinary skill in the art would have recognized to have added a styrene-butadiene copolymer to the container of Littlejohn et al. and Schlaupitz et al. to improve the impact resistance of the container as taught by Lu.

10. Claims 70 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. in view of Schlaupitz et al., and in further view of Grusin and in further view of Tsubone et al.

Littlejohn et al., Schlaupitz et al. and Grusin teach the sealable food container as discussed above.

In regard to claim 70, Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the base serving member is thermoformed from a mineral-filled polypropylene sheet. Tsubone et al., however, disclose a polypropylene sheet (col. 2, lines 45-50) that contains an inorganic filler in order to endow the sheet with formability to shape (col. 3, lines 9-14). Furthermore, Tsubone et al. teach that addition of the inorganic filler brings about improvements in heat resistance and stiffness (col. 3, lines 20-22). Therefore, one of ordinary skill in the art would have recognized

to used the mineral filled polypropylene sheet as the base of Littlejohn et al., Schlaupitz et al. and Grusin, since it is notoriously well known that mineral (inorganic) fillers improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the mineral filled polypropylene sheet as the base of Littlejohn et al., Schlaupitz et al. and Grusin, since it is notoriously well known that mineral (inorganic) fillers improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

In regard to claim 71, Littlejohn et al., Schlaupitz et al. and Grusin fail to teach the inclusion of a mineral filler, or titanium dioxide or a basic organic or inorganic compound comprising the reaction product of an alkali metal or alkaline earth element with carbonates, and as further recited in lines 8-11 of claim 23. Tsubone et al., however, disclose the use of an inorganic filler such as talc, titanium dioxide, clay, calcium carbonate, silica, alumina, glass powders, etc. (col. 3, lines 22-30) in a mixture of polypropylene and polyethylene (col. 2, lines 48-50). Examiner interprets the terms "mineral" and "inorganic" to be equivalent. Tsubone et al. disclose that the inorganic fillers can be used in combination of two or more thereof (col. 3, lines 27-29). Therefore, one of ordinary skill in the art would have recognized to have added a mineral filler, titanium dioxide and calcium carbonate to the base material of Littlejohn et al. Schlaupitz et al. and Grusin in order to improve the thermoformability of thermoplastic sheets and the mechanical properties of articles thermoformed from thermoplastic sheets as taught by Tsubone et al.

11. Claims 72 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. ('860) and Schlaupitz et al., and in further view of Grusin and in further view of Littlejohn et al. (US 6,440,509).

Littlejohn et al. ('860), Schlaupitz et al. and Grusin teach the container as discussed above. Littlejohn et al. ('860), Schlaupitz et al. and Grusin fail to teach that the wall caliper of the base is about 10 to about 50 mils (as claimed in claim 41) or about 12 to about 25 mils (as claimed in claim 42). Littlejohn et al. ('509), however, disclose a plate having a wall caliper of about 10 to about 50 mils, preferably of about 15 to about 25 mils (col. 4, lines 2-9). Therefore, one of ordinary skill in the art would have recognized to have formed the base of the container of Littlejohn et al. ('860), Schlaupitz et al. and Grusin with a wall caliper of about 10 to about 50 mils, preferably of about 15 to about 25 mils, since these wall caliper values are notoriously well known as suitable wall caliper values for a food container as taught by Littlejohn et al. ('509).

12. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Littlejohn et al. ('860), Schlaupitz et al., and in further view of Grusin and in further view of Lu.

Littlejohn et al., Schlaupitz et al. and Grusin teach the container as discussed above. Littlejohn et al., Schlaupitz et al. and Grusin fail to teach that the styrene polymer comprises a styrene-butadiene copolymer. Lu, however, discloses that styrene-butadiene serves as an impact resistant polymer for container (col. 4, lines 3-6) and that polybutadiene is the preferred rubber component of the impact polymer (col. 2, lines 47-62). Therefore, one of ordinary skill in the art would have recognized to have added a styrene-butadiene copolymer to the container of Littlejohn et al., Schlaupitz et al. and Grusin to improve the impact resistance of the container as taught by Lu.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
03/21/03 WBA

HAROLD PYON
SUPERVISORY PATENT EXAMINER 3/24/03
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